

```
$ t.N;Highlight=***;HighlightOff=*** ;
```

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LOGINID: sssptal651pxp

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * * * * * * * Welcome to STN International * * * * * * * * * * *

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 Jan 25 BLAST(R) searching in REGISTRY available in STN on the Web
NEWS 3 Jan 29 FSTA has been reloaded and moves to weekly updates
NEWS 4 Feb 01 DKILIT now produced by FIZ Karlsruhe and has a new update frequency
NEWS 5 Feb 19 Access via Tymnet and SprintNet Eliminated Effective 3/31/02
NEWS 6 Mar 08 Gene Names now available in BIOSIS
NEWS 7 Mar 22 TOXLIT no longer available
NEWS 8 Mar 22 TRCTHERMO no longer available
NEWS 9 Mar 28 US Provisional Priorities searched with P in CA/CAplus and USPATFULL
NEWS 10 Mar 28 LIPINSKI/CALC added for property searching in REGISTRY
NEWS 11 Apr 02 PAPERCHEM no longer available on STN. Use PAPERCHEM2 instead.
NEWS 12 Apr 08 "Ask CAS" for self-help around the clock
NEWS 13 Apr 09 BEILSTEIN: Reload and Implementation of a New Subject Area
NEWS 14 Apr 09 ZDB will be removed from STN
NEWS 15 Apr 19 US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
NEWS 16 Apr 22 Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
NEWS 17 Apr 22 BIOSIS Gene Names now available in TOXCENTER
NEWS 18 Apr 22 Federal Research in Progress (FEDRIP) now available

NEWS EXPRESS February 1 CURRENT WINDOWS VERSION IS V6.0d,
CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),
AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS INTER General Internet Information
NEWS LOGIN Welcome Banner and News Items
NEWS PHONE Direct Dial and Telecommunication Network Access to STN
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

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FILE 'DRUGMONOG' ENTERED AT 15:06:34 ON 23 MAY 2002

=> file drugmonog

FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|----------------------|------------------|---------------|
| FULL ESTIMATED COST | 0.21 | 0.21 |

INDEX 'ADISALERTS, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI, BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, ...'

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61 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view search error messages that display as 0* with SET DETAIL OFF.

=> fil reg

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|----------------------|------------------|---------------|
| FULL ESTIMATED COST | 0.53 | 0.74 |

FILE 'REGISTRY' ENTERED AT 15:06:46 ON 23 MAY 2002

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STRUCTURE FILE UPDATES: 21 MAY 2002 HIGHEST RN 420086-04-0
DICTIONARY FILE UPDATES: 21 MAY 2002 HIGHEST RN 420086 04-0

TSCA INFORMATION NOW CURRENT THROUGH July 7, 2001

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:

<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> e bone morphogenic protein/cn

| | | |
|----|-------|---|
| E1 | 1 | BONE MORPHOGENETIC PROTEIN-4 (MOUSE)/CN |
| E2 | 1 | BONE MORPHOGENETIC PROTEIN-7 (DANIO RERIO)/CN |
| E3 | 0 --> | BONE MORPHOGENIC PROTEIN/CN |
| E4 | 1 | BONE MORPHOGENIC PROTEIN (DUGESIA JAPONICA C-TERMINAL FRAGMENT)/CN |
| E5 | 1 | BONE MORPHOGENIC PROTEIN 2 (HUMAN CLONE PREKR TAL) FUSION PROTEIN WITH BONE MORPHOGENETIC PROTEIN 12 (HUMAN) (PRECURSOR)/CN |
| E6 | 1 | BONE MORPHOGENIC PROTEIN 2, PREPRO- (GALLUS GALLUS CLONE P5 |

GENE FOR C-TERMINAL FRAGMENT)/CN
 E7 1 BONE MORPHOGENIC PROTEIN 4 (GALLUS GALLUS CLONE P6 GENE BMP-4 PREPRO)/CN
 E8 1 BONE MORPHOGENIC PROTEIN RECEPTOR KINASE/CN
 E9 1 BONE MORPHOGENIC PROTEIN TYPE II RECEPTOR (HUMAN CLONE U2 PR ECURSOR)/CN
 E10 1 BONE MORPHOGENTIC PROTEIN 2 (HUMAN RECOMBINANT RHBMP-2)/CN
 E11 1 BONE OII/CN
 E12 1 BONE OII, DIETHANOLAMIDE/CN

=> e bmp/cn

E1 1 BMNO/CN
 E2 1 BMOO/CN
 E3 2 --> BMP/CN
 E4 1 BMP (CORROSION INHIBITOR)/CN
 E5 1 BMP (PEPTIDE)/CN
 E6 1 BMP 1/CN
 E7 1 BMP 10 (MOUSE GENE BMP10 PRECURSOR)/CN
 E8 1 BMP 10 (MOUSE GENE BMP10)/CN
 E9 1 BMP 2/CN
 E10 1 BMP 3/CN
 E11 1 BMP 4/CN
 E12 1 BMP RECEPTOR IB (DANIO RERIO STRAIN AB)/CN

=> index bioscience

FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED

COST IN U.S. DOLLARS

| | SINCE FILE ENTRY | TOTAL SESSION |
|---------------------|------------------|---------------|
| FULL ESTIMATED COST | 0.38 | 1.12 |

INDEX 'ADISALERTS, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI, BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, ...'

ENTERED AT 15:07:33 ON 23 MAY 2002

61 FILES IN THE FILE LIST IN STNINDEX

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=> s bmp? or bone morphogen? protein?

15 FILE ADISALERTS
 13 FILE ADISINSIGHT
 6 FILE ADISNEWS
 216 FILE AGRICOLA
 8 FILE ANABSTR
 329 FILE AQUASCI
 321 FILE BIOBUSINESS
 98 FILE BIICOMMERCE
 4689 FILE BIOSIS
 197 FILE BIOTECHABS
 197 FILE BIOTECHDS
 2147 FILE BIOTECHNO

470 FILE CABA
1609 FILE CANCERLIT
14 FILES SEARCHED...
4935 FILE CAPLUS
63 FILE CEABA-VTB
8 FILE CEN
88 FILE CIN
225 FILE CONFSCI
38 FILE CROPU
1 FILE DDFB
160 FILE DDFU
2929 FILE DGENE
24 FILES SEARCHED...
1 FILE DRUGB
1 FILE DRUGMONOG2
52 FILE DRUGNL
192 FILE DRUGU
15 FILE DRUGUPDATES
80 FILE EMBAL
3809 FILE EMBASE
2165 FILE ESBIOBASE
550 FILE FEDRIP
18 FILE FOMAD
18 FILE FROSTI
13 FILE FSTA
1872 FILE GENBANK
17 FILE HEALSAFE
40 FILES SEARCHED...
467 FILE IFIPAT
872 FILE JICST-EPLUS
1471 FILE LIFESCI
7 FILE MEDICONF
4196 FILE MEDLINE
7 FILE NIOSHTIC
295 FILE NTIS
20 FILE OCEAN
1422 FILE PASCAL
15 FILE PHAR
1 FILE PHIC
163 FILE PHIN
4126 FILE PROMT
54 FILES SEARCHED...
5343 FILE SCISEARCH
974 FILE TOXCENTER
2757 FILE USPATFULL
17 FILE USPAT2
596 FILE WFIDS
596 FILE WFINDEX

56 FILES HAVE ONE OR MORE ANSWERS, 61 FILES SEARCHED IN STNINDEX

L1 QUE BMP? OR BONE MORPHOGEN? PROTEIN?

=> s 11 (s) (calcium pyrophosphate? or calcium hydrogen phosphate or calcium monophosphate or acidic calcium phosphat?)

UNMATCHED LEFT PARENTHESIS '(S)' (CALCIUM)

The number of right parentheses in a query must be equal to the number of left parentheses.

=> s 11 (s) (calcium pyrophosphate? or calcium hydrogen phosphate or calcium monophosphate or acidic calcium phosphat?)

12 FILES SEARCHED...
23 FILES SEARCHED...
32 FILES SEARCHED...
0* FILE FEDRIP
42 FILES SEARCHED...
50 FILES SEARCHED...
6 FILE USPATFULL
1 FILE WPIDS
60 FILES SEARCHED...
1 FILE WPINDEX

3 FILES HAVE ONE OR MORE ANSWERS, 61 FILES SEARCHED IN STNINDEX

L2 QUE L1 (S) (CALCIUM PYROPHOSPHATE? OR CALCIUM HYDROGEN PHOSPHATE OR CALCIUM MONOPHOSPHATE OR ACIDIC CALCIUM PHOSPHAT?)

=> s 11 (s) (brushite or monetite)

14 FILES SEARCHED...
32 FILES SEARCHED...
0* FILE FEDRIP
46 FILES SEARCHED...
2 FILE USPATFULL

1 FILES HAVE ONE OR MORE ANSWERS, 61 FILES SEARCHED IN STNINDEX

L3 QUE L1 (S) (BRUSHITE OR MONETITE)

=> s 11 and (calcium pyrophosphate? or calcium hydrogen phosphate or calcium monophosphate or acidic calcium phosphat?)

12 FILES SEARCHED...
5 FILE CAPLUS
24 FILES SEARCHED...
38 FILES SEARCHED...
1 FILE IFIPAT
50 FILES SEARCHED...
51 FILE USPATFULL
1 FILE USPAT2
1 FILE WPIDS
1 FILE WPINDEX

6 FILES HAVE ONE OR MORE ANSWERS, 61 FILES SEARCHED IN STNINDEX

L4 QUE L1 AND (CALCIUM PYROPHOSPHATE? OR CALCIUM HYDROGEN PHOSPHATE OR CALCIUM MONOPHOSPHATE OR ACIDIC CALCIUM PHOSPHAT?)

=> d rank

F1 51 USPATFULL
F2 5 CAPLUS

F3 1 IFIPAT
F4 1 USPAT2
F5 1 WPIDS
F6 1 WPINDEX

=> fil f2

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|----------------------|------------------|---------------|
| FULL ESTIMATED COST | 20.14 | 21.26 |

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FILE COVERS 1907 - 23 May 2002 VOL 136 ISS 21
FILE LAST UPDATED: 22 May 2002 (20020522/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> s 14

3803 BMP?
131550 BONE
20783 MORPHOGEN?
1652967 PROTEIN?
3770 BONE MORPHOGEN? PROTEIN?
(BONE (W) MORPHOGEN? (W) PROTEIN?)
566259 CALCIUM
30455 PYROPHOSPHATE?
795 CALCIUM PYROPHOSPHATE?
(CALCIUM (W) PYROPHOSPHATE?)
566259 CALCIUM
677511 HYDROGEN
449948 PHOSPHATE
1109 CALCIUM HYDROGEN PHOSPHATE
(CALCIUM (W) HYDROGEN (W) PHOSPHATE)
566259 CALCIUM

26543 MONOPHOSPHATE
28 CALCIUM MONOPHOSPHATE
(CALCIUM(W) MONOPHOSPHATE)
179265 ACIDIC
566259 CALCIUM
654239 PHOSPHAT?
31 ACIDIC CALCIUM PHOSPHAT?
(ACIDIC(W) CALCIUM(W) PHOSPHAT?)
L5 5 L1 AND (CALCIUM PYROPHOSPHATE? OR CALCIUM HYDROGEN PHOSPHATE OR
CALCIUM MONOPHOSPHATE OR ACIDIC CALCIUM PHOSPHAT?)

=> d 15 1- all

YOU HAVE REQUESTED DATA FROM 5 ANSWERS - CONTINUE? Y/(N):n

=> s 15 and (collagen or fibrin or alginate)

66134 COLLAGEN
15781 FIBRIN
16641 ALGINATE
L6 1 L5 AND (COLLAGEN OR FIBRIN OR ALGINATE)

=> d 16 1 all

L6 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS
AN 2001:371365 CAPLUS
DN 134:357624
TI Bone prosthetic materials comprising calcium phosphate and bone formation
inducers
IN Irie, Hiroyuki
PA Olympus Optical Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM A61L027-00
ICS A61L027-00
CC 63-7 (Pharmaceuticals)
FAN.CNT 1

| | FATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|--|---------------------|----------------|-----------------|----------|
| | ----- | --- | ----- | ----- | ----- |
| PI | JP 2001137328 | A2 | 20010522 | JP 1999-321294 | 19991111 |
| AB | This invention relates to bone fillers comprising (1) multiporous
.beta.-tricalcium phosphate with porosity of 60-80 % and pore diam.
50-1000 .mu.m and (2) bone-formation promoters selected from the group
consisting of atelocollagens, hyaluronic acid, ***fibrin*** pastes,
gelatins, and growth factors. A freeze-dried powder contained porous
.beta.-tricalcium phosphate and recombinant ***bone***
morphogenetic ***protein*** . | | | | |
| ST | bone filler calcium phosphate growth factor | | | | |
| IT | Collagens, biological studies | | | | |
| EL | THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(atelocollagens; bone fillers contg. Ca phosphate and bone formation
inducers) | | | | |
| IT | ***Bone*** | ***morphogenetic*** | ***proteins*** | | |

Fibrins
Gelatins, biological studies
Platelet-derived growth factors
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(bone fillers contg. Ca phosphate and bone formation inducers)
IT Prosthetic materials and Prosthetics
(bone fillers; bone fillers contg. Ca phosphate and bone formation
inducers)
IT Bone, disease
(defect; bone fillers contg. Ca phosphate and bone formation inducers)
IT Transforming growth factors
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(.beta.-; bone fillers contg. Ca phosphate and bone formation inducers)
IT 7758-87-4P, .beta.-Tricalcium phosphate
RL: IMF (Industrial manufacture); THU (Therapeutic use); BIOL (Biological
study); PREP (Preparation); USES (Uses)
(bone fillers contg. Ca phosphate and bone formation inducers)
IT 9004-61-9, Hyaluronic acid 61912-98-9, IGF 62031-54-3, FGF
106096-93-9, Basic FGF
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(bone fillers contg. Ca phosphate and bone formation inducers)
IT 471-34-1, Calcium carbonate, reactions 7757-93-9, ***Calcium***
hydrogen ***phosphate***
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of porous tricalcium phosphate for bone fillers)

=>

---Logging off of STN---

=>

Executing the logoff script...

=> LOG Y

| COST IN U.S. DOLLARS | SINCE FILE
ENTRY | TOTAL
SESSION |
|--|---------------------|------------------|
| FULL ESTIMATED COST | 31.43 | 52.69 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE
ENTRY | TOTAL
SESSION |
| CA SUBSCRIBER PRICE | -0.62 | -0.62 |

STN INTERNATIONAL LOGOFF AT 15:31:57 ON 23 MAY 2002

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NEWS 7 Mar 22 TOXLIT no longer available
NEWS 8 Mar 22 TRCTHERMO no longer available
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NEWS 16 Apr 22 Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
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AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002

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NEWS WWW CAS World Wide Web Site (general information)

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FILE 'HOME' ENTERED AT 10:47:06 ON 24 MAY 2002

=> index bioscience

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COST IN U.S. DOLLARS

FULL ESTIMATED COST

INDEX 'ADISALERTS, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI,
BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA,
CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DDFB,
DDFU, DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, ...'

ENTERED AT 10:47:16 ON 24 MAY 2002

61 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view
search error messages that display as 0* with SET DETAIL OFF.

=> s dicalcium phosphate or monocalcium phosphate or calcium monophosphate or
calcium pyrophosphate or calcium hydrogen phosphate or brushite or monetite

| | |
|------|-------------------|
| 19 | FILE ADISALERTS |
| 1 | FILE ADISINSIGHT |
| 4 | FILE ADISNEWS |
| 274 | FILE AGRICOLA |
| 22 | FILE ANABSTR |
| 23 | FILE AQUASCI |
| 272 | FILE BIOCITY |
| 1992 | FILE BIOSIS |
| 15 | FILE BIOTECHABS |
| 15 | FILE BIOTECHDS |
| 113 | FILE BIOTECHNO |
| 1476 | FILE CABA |
| 95 | FILE CANCERLIT |
| 5474 | FILE CAPLUS |
| 38 | FILE CEABA-VTB |
| 5 | FILE CEN |
| 179 | FILE CIN |
| 40 | FILE CONFSCI |
| 3 | FILE CROPB |
| 20 | FILE CROPU |
| 78 | FILE DDFB |
| 657 | FILE DDFU |
| 23 | FILES SEARCHED... |
| 18 | FILE DGENE |
| 78 | FILE DRUGB |
| 29 | FILE DRUGLAUNCH |
| 4 | FILE DRUGMONOG2 |
| 726 | FILE DRUGU |
| 1 | FILE DRUGUPDATES |
| 11 | FILE EMBAL |
| 1508 | FILE EMBASE |
| 183 | FILE ESBICBASE |
| 27 | FILE FEDRIP |
| 2 | FILE FOMAD |
| 1480 | FILE FOREGE |
| 74 | FILE FROSTI |
| 93 | FILE FSTA |
| 1 | FILE GENBANK |
| 4 | FILE HEALSAFE |
| 925 | FILE IFIPAT |
| 190 | FILE JICST-EPLUS |
| 5 | FILE KOSMET |

314 FILE LIFESCI
45 FILES SEARCHED...
1622 FILE MEDLINE
9 FILE NIOSHTIC
65 FILE NTIS
728 FILE PASCAL
17 FILE PHIN
308 FILE PROMT
1648 FILE SCISEARCH
698 FILE TOXCENTER
12031 FILE USPATFULL
49 FILE USPAT2
1213 FILE WPIDS
60 FILES SEARCHED...
1213 FILE WPINDEX

54 FILES HAVE ONE OR MORE ANSWERS, 61 FILES SEARCHED IN STNINDEX

L1 QUE DICALCIUM PHOSPHATE OR MONOCALCIUM PHOSPHATE OR CALCIUM MONOPHOSPHATE
OR CALCIUM PYROPHOSPHATE OR CALCIUM HYDROGEN PHOSPHATE OR BRUSHITE OR
MONETITE

=> s l1 (s) (bmp? or bone morph? protein?)

1 FILE BIOSIS
11 FILES SEARCHED...
2 FILE CAPLUS
16 FILES SEARCHED...
27 FILES SEARCHED...
1 FILE EMBASE
0* FILE FEDRIP
36 FILES SEARCHED...
1 FILE JICST-EPLUS
1 FILE LIFESCI
2 FILE MEDLINE
46 FILES SEARCHED...
1 FILE PASCAL
2 FILE SCISEARCH
55 FILES SEARCHED...
4 FILE USPATFULL
1 FILE WPIDS
1 FILE WPINDEX

11 FILES HAVE ONE OR MORE ANSWERS, 61 FILES SEARCHED IN STNINDEX

L2 QUE L1 (S) (BMP? OR BONE MORPH? PROTEIN?)

=> d rank

| | | |
|----|---|-------------|
| F1 | 4 | USPATFULL |
| F2 | 2 | CAPLUS |
| F3 | 2 | MEDLINE |
| F4 | 2 | SCISEARCH |
| F5 | 1 | BIOSIS |
| F6 | 1 | EMBASE |
| F7 | 1 | JICST-EPLUS |
| F8 | 1 | LIFESCI |

F9 I PASCAL
F10 I WPIDS
F11 I WPINDEX

=> fil f2-ff9

'F2-FF9' EXCEEDS F# RANGE 'F1-F61'
SESSION CONTINUES IN INDEX FILES 'ADISALERTS, ADISINSIGHT, ADISNEWS, AGRICOLA,
ANABSTR,
AQUASCI, BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO,
CABA, CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU,
DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, DRUGNL, DRUGU, DRUGUPDATES, EMBAL, EMBASE,
ESBIOBASE, FEDRIP, FOMAD, FOREGE, FROSTI, FSTA, GENBANK, HEALSAFE, IFIPAT,
JICST-EPLUS, KOSMET, LIFESCI, MEDICONF, MEDLINE, NIOSHTIC, NTIS, OCEAN, PASCAL,
PHAR, PHIC, PHIN, PROMT, SCISEARCH, SYNTHLINE, TOXCENTER, USPATFULL, USPAT2,
WPIDS, WPINDEX'

=> fil f2-f9

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|----------------------|------------------|---------------|
| FULL ESTIMATED COST | 4.77 | 4.98 |

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=> s 12

5 FILES SEARCHED...
L3 11 L2

=> dup rem 13

PROCESSING COMPLETED FOR L3

L4 4 DUP REM L3 (7 DUPLICATES REMOVED)

=> d 14 1- all

YOU HAVE REQUESTED DATA FROM 4 ANSWERS - CONTINUE? Y/(N):y

L4 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 1
AN 1998:801006 CAPLUS
DN 130:144146
TI Healing of segmental bone defects in rats induced by a .beta.-TCP-MCPM cement combined with rhBMP-2
AU Ohura, Kouichiro; Hamanishi, Chiaki; Tanaka, Seisuke; Matsuda, Nobuyuki
CS Department of Orthopaedic Surgery, Kinki University School of Medicine, Osaka, 589-8511, Japan
SO Journal of Biomedical Materials Research (1999), 44(2), 168-175
CODEN: JBMRBG; ISSN: 0021-9304
PB John Wiley & Sons, Inc.
DT Journal
LA English
CC 63-7 (Pharmaceuticals)
AB A .beta.-tricalcium phosphate- ***monocalcium*** ***phosphate*** monohydrate (.beta.-TCP-MCPM) cement was evaluated as an effective carrier of recombinant human ***bone*** ***morphogenetic*** ***protein*** 2 (rhBMP 2) in rat femoral crit.-size defects. Hard cement cylinders (4 x 5 mm) impregnated with two different doses of rhBMP-2 (1.26 or 6.28 .mu.g) were implanted into each defect, and the results were compared with those in rats that had implantations of cylinders only. Implantation of the 6.28 .mu.g dose of rhBMP-2 caused a large bone shell to form around the defect, resulting in osseous union in all cases within 3 wk. Except for .beta.-TCP granules, the cement was resorbed and replaced by bone tissue at 6 wk. A torsion test at 9 wk showed that the failure torque and bone stiffness had recovered 99% and 141%, resp., compared with the intact contralateral femur. The defects that received 1.26 .mu.g of rhBMP-2 resulted in 40% union and 41% of the failure torque at 9 wk. However, no instances of union were obsd. in the defects implanted with cylinders only. In conclusion, the .beta.-TCP-MCPM cement was shown to be effective as a rhBMP-2 carrier. Combined with rhBMP-2, this cement was rapidly resorbed and completely healed the defects.
ST bone defect calcium phosphate cement; BMP calcium phosphate composite bone defect
IT Bone morphogenetic proteins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (2; healing of segmental bone defects in rats induced by a .beta.-TCP-MCPM cement combined with rhBMP-2)
IT Medical goods
 (bone cements; healing of segmental bone defects in rats induced by a .beta.-TCP-MCPM cement combined with rhBMP-2)
IT Prosthetic materials and Prosthetics
 (composites, implants; healing of segmental bone defects in rats induced by a .beta. TCP MCPM cement combined with rhBMP-2)

IT Bone, disease
(defect; healing of segmental bone defects in rats induced by a .beta.-TCP-MCPM cement combined with rhBMP-2)

IT 7758-87-4, Tricalcium phosphate 10031-30-8, Monocalcium phosphate monohydrate
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(healing of segmental bone defects in rats induced by a .beta.-TCP-MCPM cement combined with rhBMP-2)

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD

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L4 ANSWER 2 OF 4 MEDLINE DUPLICATE 2

AN 1999069840 MEDLINE

DN 99069840 PubMed ID: 9852738

TI Osteotransductive bone cements.

AU Driessens F C; Flanell J A; Poltong M G; Khairoun I; Ginebra M P

CS Department of Materials Science and Metallurgy, Universitat Politècnica de Catalunya, Barcelona, Spain.

SO PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS. PART H, JOURNAL OF ENGINEERING IN MEDICINE, (1998) 212 (6) 427-35.
Journal code: ABJ; 8908934. ISSN: 0954-4119.

CY ENGLAND: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199901

ED Entered STN: 19990115
Last Updated on STN: 19990115
Entered Medline: 19990104

AB Calcium phosphate bone cements (CPBCs) are osteotransductive, i.e. after implantation in bone they are transformed into new bone tissue. Furthermore, due to the fact that they are mouldable, their

osteointegration is immediate. Their chemistry has been established previously. Some CPBCs contain amorphous calcium phosphate (ACP) and set by a sol-gel transition. The others are crystalline and can give as the reaction product ***dicalcium*** ***phosphate*** dihydrate (DCPD), calcium-deficient hydroxyapatite (CDHA), carbonated apatite (CA) or hydroxyapatite (HA). Mixed-type gypsum-DCPD cements are also described. In vivo rates of osteotransduction vary as follows: gypsum-DCPD > DCPD > CDHA approximately CA > HA. The osteotransduction of CDHA-type cements may be increased by adding ***dicalcium*** ***phosphate*** anhydrous (DCP) and/or CaCO₃ to the cement powder. CPBCs can be used for healing of bone defects, bone augmentation and bone reconstruction. Incorporation of drugs like antibiotics and ***bone*** ***morphogenetic***

protein is envisaged. Load-bearing applications are allowed for CHDA-type, CA-type and HA-type CPBCs as they have a higher compressive strength than human trabecular bone (10 MPa).

CT Check Tags: Human
Biomechanics
*Bone Cements: CH, chemistry
*Calcium Phosphates: CH, chemistry
Drug Carriers
Gels
Materials Testing
*Osseointegration: PH, physiology
Rheology
Solutions
RN 10103-46-5 (calcium phosphate)
CN 0 (Bone Cements); 0 (Calcium Phosphates); 0 (Drug Carriers); 0 (Gels); 0 (Solutions)

L4 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2002 ACS
AN 1997:362496 CAPLUS
DN 127:55818
TI The healing of segmental bone defects induced by bioresorbable calcium phosphate cement combined with rhBMP-2
AU Ohura, K.; Hamanishi, C.; Tanaka, S.; Matsuda, N.
CS Dep. Orthopaedic Surgery, Kinnki Univ. Sch. Med., Osaka, 540, Japan
SO Bioceram., Proc. Int. Symp. Ceram. Med. (1996), 9, 247-250
CODEN: BPCMFX
PB Elsevier
DT Journal
LA English
CC 63-7 (Pharmaceuticals)
AB Two doses of recombinant human ***bone*** ***morphogenetic*** ***protein*** (rhBMP-2) (1.26 or 6.28 .mu.g) were soaked into prehardened cylinders (.vphi. 4 .times. 5 mm) of bioresorbable calcium phosphate cement, consisting of .beta.-tricalcium phosphate- ***monocalcium*** ***phosphate*** monohydrate-calcium sulfate hemihydrate. These cylinder were implanted into 5 mm segmental defects in the femora of adult male rats, and the results were compared with those in rats that had implantation of the cement alone. Both doses of rhBMP-2 induced bone formation in a dose-related manner. Implantation of 6.28 .mu.g of rhBMP-2 yielded much bone formation around cylinders at 3 wk, resulting in radiog. evidence of union in all cases, and showed the same torsional failure loads as those of the contralateral control at 9 wk. Despite new bone formation in the defects that had received 1.26 .mu.g of rhBMP-2 and no rhBMP-2, 40 % and no instances of union were obsd., resp. ST bone defect cement morphogenetic protein; calcium phosphate bone cement

IT morphogenetic protein
IT Bone cements
Bone detects
(healing of segmental bone defects induced by bioresorbable calcium phosphate cement combined with rhBMP-2)
IT Bone morphogenetic proteins
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(healing of segmental bone defects induced by bioresorbable calcium phosphate cement combined with rhBMP-2)
IT 7758-23-8, Monocalcium phosphate 7758-87-4, Tricalcium phosphate
7778-18-9, Calcium sulfate
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(healing of segmental bone defects induced by bioresorbable calcium phosphate cement combined with rhBMP-2)

L4 ANSWER 4 OF 4 JICST-EPlus COPYRIGHT 2002 JST
AN 940382732 JICST-EPlus
TI The effects of calcium phosphates on BMP activity.
AU JINDE TOSHIKAGE
CS Aichigakuin Univ., Faculty of Dentistry
SO Nippon Koku Geka Gakkai Zasshi (Japanese Journal of Oral and Maxillofacial Surgery), (1994) vol. 40, no. 3, pp. 377-395. Journal Code: G0132C (Fig. 34, Ref. 65)
ISSN: 0021-5163
CY Japan
DT Journal; Article
LA Japanese
STA New
AB In this experiment, five different soluble calcium phosphates ceramics were synthesized: HAP, .BETA.-TCP, .ALPHA.-TCP, OCP(octacalcium phosphate) and DCPD(***dicalcium*** ***phosphate*** dehydrate). The effects of the ceramics on ***BMP*** activity were investigated in vitro and in vitro. Five mg of ***BMP*** was prepared along with 5 or 25mg of ceramics. These were then combined to form complexes. These complexes were implanted epifascially in the femoral region, and their osteoinductive activities were examined at 4 weeks after implantation by means of roentgenographic and histologic observations. The amount of bone induced by the complexes was determined by a computer-supported image analysis system. For in vitro studies, a culture system which differentiated neonatal muscle into cartilage in response to ***BMP*** contained in Bone Matrix Gelatin (BMG(+)) was adopted. Calcium phosphate was applied onto the BMG, and a fetal rat muscle was placed on top, and the system was cultured. On Day 14 of culture, incorporation of .cents.35S!-sulfate into glycosaminoglycans(GAG) was measured. Furthermore, to study the solubility of the ceramics in the culture medium, the ceramics were soaked in the same medium for 3 days, and the amounts of Ca and P and the change in pH were measured. HAP, .BETA.-TCP and .ALPHA.-TCP did not affect ***BMP*** activity when 5mg and 25mg ceramics/ ***BMP*** complexes were implanted in the mice. OCP and DCPD did not affect ***BMP*** activity When 5mg ceramics/ ***BMP*** complexes were implanted, but inhibited ***BMP*** activity when 25mg ceramics/ ***BMP*** complexes were implanted. Only DCPD inhibited ***BMP*** activity while other ceramics did not in vitro. HAP, .BETA.-TCP and .ALPHA. TCP produced no change in the Ca and P concentrations of the medium, but DCPD increased the concentrations of Ca and P' and OCP decreased the concentratincns of Ca and P. All the ceramics

behaved similarly to the control in regard to the pH of the medium.
(abridged author abst.)

CC GT06000B (616.314 '7)

CT osteogenesis; bioactive factor; calcium phosphate; in vivo experiment; in vitro experiment; mouse(animal); electron microscopy; animal test

BT bone metabolism; metabolism; factor; calcium compound; alkaline earth metal compound; phosphate(salt); phosphorus oxoate; oxoate; oxygen compound; oxygen group element compound; phosphorus compound; nitrogen group element compound; experiment; Myomorpha; Rodentia; Mammalia; Vertebrata; animal; microscopy; observation and view

=>

---Logging off of STN---

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Executing the logoff script...

=> LOG Y

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| FULL ESTIMATED COST | 44.01 | 48.99 |

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| CA SUBSCRIBER PRICE | -1.24 | -1.24 |

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